GAO/RCED-88-120

United States General Accounting Office

GAO

Report to the Honorable
John Heinz, U.S. Senate

COMPLETED

April 1988

RAILROAD SAFETY

Reporting Time Frames and Results of Post-Accident Drug Tests

ORIGINAL

GAO

United States
General Accounting Office
Washington, D.C. 20548

Resources, Community, and
Economic Development Division

B-230678

April 8, 1988

The Honorable John Heinz
United States Senate

Dear Senator Heinz:

In response to your June 3, 1987, request and as agreed with your office, we have reviewed two aspects of the Federal Railroad Administration's (FRA) program for conducting drug and alcohol tests of the crew members involved in certain types of railroad accidents.[1] The two aspects are

- FRA's use of one laboratory to conduct all testing for the program and
- the time required for FRA to obtain test results from the laboratory.

In addition, we obtained information on the results of FRA's post-accident drug and alcohol testing in 1987. We briefed your staff on the results of our work on September 14, 1987. At the request of your office, this report summarizes that briefing, with information updated through October 1987. As you know, we have since begun work on a subsequent request that we review FRA's conduct of railroad inspections and accident investigations in Pennsylvania, which in part follows through on the findings in this report.

In summary, we found that FRA exclusively uses a laboratory in Utah for post-accident testing because it believes the single laboratory approach is the most practical way to ensure standard procedures, control mechanisms, and reporting protocols. We found that the laboratory's location was not a major factor in the time required to obtain test results, since the majority of crew member samples were received at the laboratory by or on the second day after the samples were taken.

Since April 1987, when the Utah laboratory first contracted for the work, the time frames to report results have improved substantially. In April, it took an average of 16.2 working days to report initial screening test results for accidents where all crew members tested negative; by October, the reporting time frame fell to an average 4.8 working days,

[1]FRA, by regulation, established thresholds for accidents and incidents for which testing will be done, such as (1) a fatality, (2) the release of hazardous materials resulting in an evacuation or reportable injury, or (3) an impact accident resulting in a reportable injury or damage to railroad property exceeding $50,000.

which is slightly below the 5-workday requirement included in the laboratory's contract. Similarly, the time frame to report results for accidents where at least one crew member produced a positive result at initial screening, thereby requiring further detailed confirmation testing, declined from 25.6 working days in April to 13.0 working days in October, a time frame still above the 10-workday standard included in the laboratory contract.

Our examination of the laboratory reports also showed that at least one crew member, in about 1 out of every 5 of the 102 accidents between April and October 1987, tested positive for the presence of drugs or alcohol. FRA has advised us that its records for calendar year 1987 indicate at least one positive test result in 20.7 percent of the accidents (37 out of 179) subjected to its drug and alcohol testing program. We are pursuing this finding in our ongoing work by assessing FRA's follow through on crew member drug and alcohol testing results as a part of its accident investigations in Pennsylvania.

Background

The federal government's role in the railroad safety area is to protect railroad employees and the public by ensuring the safe operation of passenger and freight trains. The Federal Railroad Safety Act of 1970 consolidated and clarified the Department of Transportation's regulatory authority over all areas of railroad safety and empowered the Secretary of Transportation to prescribe rules as necessary. The Secretary delegated this responsibility to the FRA Administrator except with regard to railroad/highway grade crossings.

Beginning in 1975, FRA, in cooperation with rail labor and management, conducted research into the scope and seriousness of the problem of alcohol use on the nation's railroads. In February 1986, FRA's final rule on the control of alcohol and drug use in railroad operations generally became effective. The rule prohibits employees directly connected with rail operations, such as train crews, dispatchers, and signalers, from using, possessing, or being impaired by alcohol or any controlled substance while on duty. For each train accident or incident, as defined by the regulation, a railroad representative is required to accompany surviving train crews subject to testing to an independent medical facility for the collection of blood and urine samples for testing. In the case of fatalities, samples are obtained from appropriate local authorities, such as the coroner or the medical examiner.

FRA initially entered into a cost-reimbursable agreement with a Federal Aviation Administration (FAA) laboratory at the Mike Monroney Aeronautical Center in Oklahoma City, Oklahoma, to perform post-accident drug testing. FRA used this laboratory until March 30, 1987, when it discovered anomalies in the laboratory's test results and terminated the agreement.

At that time, FRA officials had to develop an immediate course of action to keep the post-accident testing program in operation. Based on discussions with officials at the National Institute on Drug Abuse and National Transportation Safety Board, FRA learned that the Center for Human Toxicology (CHT), which is part of the University of Utah in Salt Lake City, was well equipped to handle the drug testing program. FRA initially issued a purchase order to cover the first few weeks of testing by CHT. In June 1987, FRA negotiated a letter contract with CHT for work through September 1987 and then extended this contract through March 1988. FRA planned to obtain competitive bids for drug testing services after March 1988; however, because of delays in preparing a request for proposal, FRA plans to extend CHT's contract through September 1988 after which time it plans to obtain drug testing services on a competitive-bid basis.

The National Transportation Safety Board also investigates railroad accidents as part of its overall mandate to promote transportation safety by formulating safety improvement recommendations. The Board was created by the Department of Transportation Act of 1966. In 1974, the Congress enacted the Independent Safety Board Act, which established the Board as an independent federal agency and broadened its investigative role in the surface modes of transportation. Under this act, the Board has authority to investigate; determine the facts, conditions, and probable cause of accidents; and conduct studies on transportation safety. Although FRA and the Board may separately investigate rail accidents, samples drawn under FRA's post-accident testing program are used by both FRA and the Board to evaluate the presence of drugs or alcohol in railroad employees.

In February 1988, the 9th U.S. Circuit Court of Appeals ruled that certain provisions of FRA's rule on control of drug and alcohol abuse in railroad operations were unconstitutional. In March 1988, the court of appeals granted the government's motion for a stay of the court's mandate until April 2, 1988. According to FRA, under the appellate rules, the

stay will remain in effect, pending Supreme Court disposition, if the government files a petition for Supreme Court review by April 2 and the appeals court is notified. The petition was filed on March 17, 1988.

FRA's One-Laboratory Approach

FRA has concentrated all of its post-accident testing in a single laboratory since its regulation on post-accident drug and alcohol testing went into effect. Since April 1987, FRA has used CHT at the University of Utah. According to the FRA Administrator, a single laboratory is used because of the need for standardized procedures, control mechanisms, and reporting. FRA officials believe one laboratory, rather than regional laboratories, is the most practical way to fulfill this need. They do not believe that using regional laboratories across the country would be a significant factor in reducing the time involved to obtain test results. In view of the need for FRA to exert strict quality controls over the laboratory and our finding that in most cases cross-country transportation of samples was generally being accomplished within 24 to 48 hours (as discussed later), we have no basis for questioning FRA's position.

Time Required to Obtain Results

FRA's regulations established procedures for railroad company, medical facility, and testing laboratory personnel to follow in order to ensure that FRA will receive timely results from post-accident samples. We computed the time taken to collect the samples after an accident, deliver these samples to the laboratory, and the time taken by the laboratory to test and report the results.

Time Required to Collect Samples

FRA requires that railroad companies make every reasonable effort to ensure that samples are provided as soon as possible after any accident or incident that meets one or more of the threshold criteria. It requires that employees be taken to an independent medical facility where urine samples will be taken and blood samples drawn by a qualified medical professional or by a qualified technician subject to the supervision of a qualified medical professional.

Our review of FRA records indicates that the time taken to obtain samples averaged about 5 hours and ranged from about 1 hour to 12 hours in the 70 nonfatal accidents from April 1987 to the end of October 1987. There were 19 additional nonfatal accidents for which the recorded data were not sufficient for us to determine the time taken to collect samples. For the 13 accidents involving a fatality, the time required to collect samples ranged from 5 hours to 26 hours (for 5 cases information on the

time taken to collect the samples was unavailable) because, in some cases, samples of body tissue must be obtained, sometimes from the local coroner.

Time Required to Deliver Samples to the Laboratory

On the basis of information provided to us by the laboratory and FRA, we computed the time between when the samples were taken and receipt of the samples by CHT. This time includes the time required to deliver the samples to the air courier, in cases where air transport is necessary, and for transportation via the air courier to the laboratory. CHT is located in Salt Lake City, Utah, and, according to FRA officials, a courier is available for round-the-clock pick up and delivery service for samples from the Salt Lake City airport to the laboratory.

Overall, as shown in table 1, 53 samples—60 percent of the total—were delivered to the laboratory within 1 day of the sample being taken, and 77—87 percent of the total—were delivered within 2 days.

Table 1: Time Required to Deliver Samples to the Laboratory

Nonfatal accidents	Number
Same day as sample obtained	7
Next day	46
Second day	24
Third day	6
Fourth day	2
Information unavailable	4
Total	**89**

Time Required by the Laboratory to Test and Report Results

FRA specified in its contract with CHT that all tests be completed and reported to FRA as soon as possible, and in any case, within certain specified time frames. The tests consist of an initial screening of all samples and confirmation tests (a series of analyses) on any samples testing positive in the initial screening. FRA's contract time frames called for reports within 5 working days of receipt for accidents where all samples received only initial screening tests, to within 10 working days for accidents where confirmation testing of at least one sample is required, and within 15 working days for tests involving fatalities of railroad employees.

FRA program officials told us that they intended the standards to serve as goals, since they formulated them in April 1987, when neither FRA nor

the laboratory had sufficient experience to specify reporting requirements that would be realistic without endangering the integrity of the results. On the basis of 7 months' experience, FRA modified the contract in early November 1987 to allow 15 working days for reporting results on accidents that require confirmation testing for the presence of cannabinoids (e.g., marijuana). FRA program officials told us that they agreed to extend this reporting time based on the laboratory's experience with the highly complex series of analyses required for confirmation of certain drugs.

Our analysis of CHT's reporting performance is summarized in tables 2 and 3, which show the average number of working days that elapsed between the time when CHT received the samples and when FRA received the test results.

Table 2: Testing and Reporting Times for Nonfatal Accidents Requiring Only Initial Screening Tests

Month (1987)	Number of Accidents	Average number of working days	Range
April	6	16.2	12–20
May	7	9.9	7–13
June	13	8.1	5–14
July	13	6.9	5–10
August	5	7.6	6–10
September	7	4.7	4-6
October	4	4.8	4-6
Total	**55**		

Table 2 shows that for the first 5 months, CHT did not meet the contract standards for reporting on accidents where only initial screening was performed on all crew member samples. However, the reporting time frames declined over the period until September 1987, when the average number of working days to report the results on such accidents was less than the 5-day standard. In October 1987, the average had risen slightly but was still below the standard.

We separately analyzed CHT data to determine their performance against the FRA standard of 10 working days for accidents requiring confirmation testing of samples. Samples that initially test positive for alcohol and/or drug presence are validated through a second series of confirmation analyses.

Table 3: Testing and Reporting Times for Nonfatal Accidents Requiring Confirmation Tests

Month (1987)	Number of Accidents	Average number of working days	Range
April	7	23 6	15–37
May	8	22 1	12–39
June	6	18 5	16–20
July	2	20 0	20–20
August	3	18 3	15–20
September	4	14 8	12–17
October	4	13 0	8–18
Total	**34**		

The time frames for reporting results of accidents requiring confirmation tests include the time for performing both the initial screening and the confirmation testing. By October 1987, CHT's average time for completing the tests and reporting the results decreased from nearly 24 working days to 13 working days.

We found that CHT also improved its performance for reporting results for the relatively few accidents with fatalities during the period. FRA's standard for this type of accident is 15 working days and includes the time required for initial screening and confirmation testing. Our analysis showed that the laboratory averaged 25 working days to report on three fatal accidents that occurred in April 1987, the first month of the contract. However, for the 10 fatal accidents that occurred in the following 6 months, the reporting time frame averaged 10.4 working days.

Results of the Post-Accident Drug and Alcohol Testing Program in 1987

Our examination of CHT's reports also revealed the results of the post-accident drug and alcohol testing program for the period April 1987 through October 1987. In about one accident in five, the laboratory reported positive test results for drugs or alcohol on at least one crew member sample. FRA program officials found a similar pattern for calendar year 1987. FRA records show that for calendar year 1987, at least one crew member tested positive in 37 out of 179 accidents subject to the testing program or 20.7 percent. We are pursuing this finding in our ongoing work by assessing FRA's follow through on crew member drug testing results as a part of its accident investigations in Pennsylvania.

Objectives, Scope, and Methodology

To obtain information on FRA's post-accident drug and alcohol testing program, we reviewed the Federal Railroad Safety Act of 1970 and FRA's regulations and instructions relating to the program. Concerning the use of a single laboratory to do the testing, we interviewed FRA headquarters officials responsible for the program to obtain their views. We also reviewed documentation provided by the laboratory to FRA to obtain the reporting time frames for both initial screening testing and confirmation test results. We discussed the reasons for the reporting time frames with both FRA headquarters officials and officials at the laboratory in Utah. We also discussed the investigative process with National Transportation Safety Board headquarters officials to determine how drug and alcohol testing fits into the process. Our review covered the performance of FRA's post-accident drug and alcohol testing program between April and October 1987. It was performed between July 1987 and November 1987, in accordance with generally accepted government auditing standards.

We discussed our findings with FRA officials, who generally agreed with our findings. However, as requested by your office, we did not obtain official agency comments on a draft of this report.

Unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from the date of this letter. At that time, we will send copies to the Secretary of Transportation, the Administrator, Federal Railroad Administration; and other interested parties. We will make copies available to others upon request.

Major contributors to this report are listed in appendix I.

Sincerely yours,

K. M. Mead

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Associate Director

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